

DISCLAIMER:

This document does not meet the
current format guidelines of
the Graduate School at
The University of Texas at Austin.

It has been published for
informational use only.

Copyright

by

James Paul Cardenas

2015

**The Report Committee for James Paul Cardenas
Certifies that this is the approved version of the following report:**

**Transit Deserts in Urbanized Areas:
Challenges and Opportunities in Texas**

**APPROVED BY
SUPERVISING COMMITTEE:**

Supervisor:

Ming Zhang

Stacey G. Bricka

**Transit Deserts in Urbanized Areas:
Challenges and Opportunities in Texas**

by

James Paul Cardenas, B.A.

Professional Report

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Science in Community and Regional Planning

The University of Texas at Austin

August, 2015

Abstract

Transit Deserts in Urbanized Areas: Challenges and Opportunities in Texas

James Paul Cardenas, M.S.C.R.P.

The University of Texas at Austin, 2015

Supervisor: Ming Zhang

This report focuses on urbanized areas that have limited or no transit service in the Austin metropolitan urbanized area. Commonly called urban gaps or more broadly, transit deserts, these areas are typically not serviced by the rural or urban transit provider. The jurisdictional entity such as a municipality or county must coordinate with the rural or urban transit provider to service the urbanized areas. This process can occur in a number of different ways, which this report focuses on.

Urbanized areas are classified during each decennial census. As such, growing communities may become urbanized or become classified as part of a nearby urbanized region. This seemingly minor designation has a major impact in terms of transit funding. Communities that acquire an urban area designation can no longer be serviced by the rural transit provider using the Federal Transit Administration's 5311 Rural Area Formula Grants. Other funding sources, such as FTA Section 5307 Urbanized Area Formula Funding can be used but require a matching contribution. This creates a dilemma for newly urbanized communities both in terms of funding and transit service levels.

One example includes Georgetown, TX, which became part of the Austin metropolitan urbanized area in the 2010 census. Communities like Georgetown have three main avenues of obtaining public transit. If applicable, the community can join the nearest metropolitan transit agency, create a regional transit district or limited eligibility transit agency or contract with a transit provider for local service.

Many important financial and social challenges exist for communities experiencing a lack of transit access. Vulnerable populations, such as the elderly and transit dependent residents are further affected by the sudden loss of transit service. This report will look at some of the ways communities are addressing these issues and what progress has been made in the five years (2010-2015) that newly urbanized communities have been affected. There are different solutions and strategies to address these changes, and with proper planning and coordination, these transitions can yield smooth and effective results into the next phase of urban transit service.

Table of Contents

Chapter 1: Introduction.....	1
Chapter 2: Review of Existing Literature.....	3
Current Funding for Rural and Urban Areas	4
Impacts of U.S. Census Designation	6
Funding Impacts	6
Additional Requirements for Servicing Urbanized Areas.....	7
Safety and Asset Management Plans.....	7
Triennial Reviews	8
Urban Gaps.....	9
Joint Urban/Rural Operation.....	9
Limited Eligibility Transit Agency	10
Contracting for Service.....	11
National Case Studies	11
Chapter 3. A Brief Snapshot of Texas Areas Affected by the 2010 Urbanized Area Designation: Transit Survey and Results.....	12
Survey Methodology	13
Analysis of Results	16
Jurisdictions with Public Transportation.....	17
Jurisdictions without Transit Service.....	23
Chapter 4: Case Studies in the CAMPO Area	26
Public Transit Context	26
City of Round Rock.....	29
Key Findings.....	32
City of Buda	32
Key Findings.....	34
City of Georgetown	35
Key Findings.....	37
City of Kyle.....	37

Key Findings.....	39
Chapter 5. Summary and Best Practices.....	39
Funding Strategies in Practice.....	42
Chapter 6. Conclusion	43
Works Cited	45
Appendix.....	48

List of Tables

Table 1. UZA Percentage of Selected Areas	15
Table 2. Jurisdiction Responses to First Survey Question.....	16
Table 3. What is the name(s) of the transit provider(s)?	17
Table 4. Please explain the type of service provided (i.e. fixed-route bus, direct response, paratransit).	17
Table 5. How is public transportation funded in your jurisdiction? Funding may include federal grants,.....	18
Table 6. Was your jurisdiction’s funding affected by the 2010 Census’ designation of your jurisdiction as an urbanized area?	19
Table 7. What challenges, if any, has your jurisdiction faced regarding public transportation? (This may include complaints from the community regarding access, service frequency... etc.)	20
Table 8. How has your jurisdiction addressed those challenges? What has worked and what was less successful?	21
Table 9. Does your jurisdiction plan to work with neighboring jurisdictions to provide public transportation in the future?	21
Table 10. Is there a need for public transportation in your area? Will you see this changing in the near future?	23
Table 11. What transportation options currently exists for people without vehicles or unable to drive?	23
Table 12. Has your jurisdiction worked with other jurisdictions in the past to provide public transportation?	24

Table 13. Does your jurisdiction plan to work with neighboring jurisdictions to provide public transportation in the future?	25
Table 14. Summary of Case Studies	41
Table 15. Jurisdictions Identified	48

List of Figures

Figure 1. 2000 and 2010 UZA Boundaries around McKinney and Melissa ..	14
Figure 1. Map of the Capital Area RTCC Region displaying urban gaps in red.	29
Figure 2. City of Round Rock	30
Figure 3. City of Buda	33
Figure 4. City of Georgetown.....	36
Figure 5. City of Kyle	38
Figure 6. Survey Questions	52

Chapter 1: Introduction

Mass transportation is an important and integral service for many people in the U.S. Riders access public transit for taking trips to work, for errands such as going to the grocery store and for medical appointments among other purposes. The total number of trips on public transit for the U.S. was 10.8 billion in 2014, the highest it has been since the middle of the 20th century. The trend for ridership has been on the rise, with a 39% increase from 1995 to 2014 (American Public Transportation Association, 2015). Mass transit is heavily subsidized by federal funds from the Federal Transit Administration (FTA). The current budget plan for the FTA is the Moving Ahead for Progress in the 21st Century legislation, commonly known as MAP-21. The law was signed by President Obama on July 6, 2012 and allocated \$105 billion for fiscal years 2013 and 2014 (Federal Highway Administration, 2015). Extension bills have been passed for 2015.

A number of federal grants exist for transit agencies across the country, but the majority of funding is allocated according to areas designated as an urban or rural area. With each decennial census, new areas with populations over 50,000 are classified as small urban areas. This has a direct impact on the types of grants the transit agency serving the area can use. Additional requirements such as having a transit Asset Management Plan and reporting annual statistics to the National Transit Data (NTD) are just some of the measures affected by an urban designation. These requirements can put a strain on the agency servicing the newly urbanized area, especially if they are limited on staff and policy knowledge.

In Texas, the transition of communities from rural to urbanized is a growing concern. Texas remains one of the fastest growing states in the U.S., which could lead to more urbanized area designations in the near future (U.S. Census Bureau, 2014). As such,

many communities located around the major metropolitan areas have been affected by the both the 2000 Census and the more recent 2010 Census. Previously served by the local rural provider, newly urbanized areas must coordinate with transit providers and in some cases, other local jurisdictions to plan for service within the area. The coordination and planning for transit service is a process that can take several years or more. Within that context, communities are left with transit deserts or urban gaps where no transit service is available. The next chapters in this report will outline the review of current literature and focus on issues occurring in Texas. Particularly, this report focuses on the Austin metropolitan area and the changes and strategies that have taken place between different jurisdictions and agencies from 2010 to 2015. This report is intended to highlight important initiatives that can be implemented or reproduced in other areas across Texas. This report is also intended to contain useful information for communities and transit districts expecting urbanized designation status from the next decennial census in 2020.

The following sections are outlined as follows: Review of Literature, A Brief Snapshot of Texas Areas Affected by the 2010 Urbanized Area Designation: Transit Survey and Results, Case Studies in the Austin Metropolitan Area, Summary of Results and a Conclusion section. The review of existing literature yielded a relatively small amount of information on the transitional challenges per se. Many documents did detail the different types of funding for rural and urbanized areas. A few documents addressing funding challenges and urban gaps were found to be very useful and are documented in this report, some of which are reports examining Texas cases.

Chapter three examines the public transit service transitions occurring in Texas, analyzing the jurisdictions affected by the 2010 Census designation. This section describes the methodology used to select which jurisdictions were affected and which communities

were contacted and asked to participate in an online survey. This section also includes a summary and discussion of survey results.

Chapter four addresses the particular concerns within the scope of the Austin metropolitan area, which falls under the federal planning designation of the Capital Area Metropolitan Planning Organization (CAMPO). The section briefly summarizes the public transit context and history and examines four case studies within the region. The case studies highlight several strategies and challenges faced by the different jurisdictions.

Chapter five summarizes the results found from the case studies and the overall larger picture describing Texas communities and the changes occurring. This section highlights the strategies emphasized in the case studies in a table layout. The final chapter, chapter six, concludes this report with a discussion of implications for communities and transit agencies.

Chapter 2: Review of Existing Literature

A search of existing literature reveals extensive research on the funding structures existing for rural communities and urban communities. The research is particularly helpful for the changes in funding that occur through the new legislation bills passed by Congress every few years. The literature did not reveal a large amount of information pertaining to the transition of funding that smaller communities encounter when designated as an urban area by the U.S. Census. A report from the National Highway Cooperation Research Program (NCHRP) *Research Results Digest 384* is a detailed guide explaining the transitions encountered when transitioning to a new urban area. Another report, *Sizing and Serving Texas Urban Gaps*, specifically addresses the problems related to transit deserts or

urban gaps. This section will outline the important topics that have been covered extensively in the existing literature and the topics that outline the direction of research for this report.

CURRENT FUNDING FOR RURAL AND URBAN AREAS

As of 2015, Moving Ahead for Progress in the 21st Century (MAP-21) is the most current legislation regulating the funding for rural and urban mass transit. The bill was signed on July 6, 2012 by President Obama and authorized \$105 billion for transportation funding for FY2013 and FY2014 (Texas Legislative Budget Board, 2013). An authorization bill in 2014 further allocated current funding amounts for FY2015¹ (Parsons Brinckerhoff, 2015).

The Texas Department of Transportation hosts a webpage titled “Transit Funding” that outlines the FTA section grants available to rural and urban transit operators. The section grants include:

- **FTA Section 5307:** This section of funding will be discussed further in this chapter. 5307 is the primary source FTA funding for urbanized areas and is the largest source of funding with an allocated budget of \$3.2 billion for FY2015 (Federal Transit Administration, 2015).
- **FTA Section 5309:** This section is titled the Capital Investment Grant (CIG) Program, also known as New Starts. This section provides funding for the, “establishment of new rail or busway projects (new starts), the improvement and maintenance of existing rail and other fixed guideway systems that are more than

¹ On June 9, 2015, HR 2577 passed in the U.S. House of Representatives reauthorizing similar funding amounts for fiscal year 2016. If passed in the U.S. Senate, the transit formula amounts will remain at \$8.6 billion for FY 2016 (Library of Congress, 2015).

seven years old, and the upgrading of bus systems (Federal Transit Administration, n.d.-a).

- **FTA Section 5310** – This grant funding title is, “Transportation Funding for Elderly Persons or Persons with Disabilities.” The funds are appropriated based on each state’s share of the population for each of these groups.
- **FTA Section 5311** – This section is one of the primary sources of federal funding for transit providers serving rural areas (populations under 50,000).
- **FTA Section 5316** – Titled, “Job Access and Reverse Commute Program,” this section provides funding to, “address the unique transportation challenges faced by welfare recipients and low-income persons seeking to obtain and maintain employment” (http://www.fta.dot.gov/grants/13093_3550.html).
- **FTA Section 5317** – New Freedom Program funding is allocated to improve transportation and access for people with disabilities. The funding can be used for capital or operating expenses for new transportation services and alternatives that go beyond the required standards set by the Americans with Disabilities Act of 1990 (ADA).

All FTA grant programs have match requirements at different percentages based on the type of funding. This means that only a portion of the funding will be provided with the other portions coming from local sources. Local sources can include state appropriations, local government contributions, advertising revenue, private sector donations, land value captures and impact fees among other avenues (Bond, Minkoff, Martin, & Santalucia, 2013).

The Texas State Legislature also appropriates funding to mass transit in rural areas and eligible urban areas. The majority of funding (65%) is allocated to rural areas with the remaining 35% allocated to urban transit (Arndt, Edrington, Sandidge, Valencia, & Jordan, 2010). In FY 2014-15, the yearly appropriation for public transportation was \$88.5 million (Texas State Legislature, 2013).

IMPACTS OF U.S. CENSUS DESIGNATION

Funding Impacts

Designation of an urbanized area by the U.S. Census Bureau affects the funding that jurisdictions and transit authorities receive for public transportation. Research Results Digest 384, sponsored by the National Cooperative Highway Research Program (NCHRP), details the funding differences between rural and urbanized areas. As rural areas are designated as urban areas per the census, the transit authorities servicing those areas are now eligible for FTA Section 5307 funding, the largest federal funding source for mass transit (Bond et al., 2013). 5307 funds can be used for capital projects and planning – for small urban areas (between 50,000 and 200,000), funding can also be used for transit vehicle operations. At least 1% of 5307 funding must be allocated toward transit improvements, such as bus stop shelters, new signage, bike racks, etc. (p.6).

The ownership and governance of the transit provider also affect federal funding impacts. *Research Results Digest 384* lists the different types of ownership that are common for transit operators:

- The state DOT.

- Existing fixed-route transit operators receiving Section 5311 (Formula Grants for Rural Areas).
- Demand-transit operators.
- Local governments operating transit service or local governments that have entered into an interlocal agreement for transit service.
- A newly chartered regional transit authority (RTD).
- Non-profit organizations providing demand-response or Medicaid transportation (eligible for 5310 funding or Medicaid funding). Private organizations can also provide public transportation but are only eligible as a sub-recipient under a public operator (p. 14-15).

Transit operator ownership is important in that they assume the responsibility, depending on if they are a direct recipient of FTA funding, for complying with the additional sets of rules and requirements for urbanized areas. Compliance can be time consuming and require additional knowledge and personnel. In some cases, an urban transit authority can oversee the process and reporting requirements and assume the role of direct recipient for a nearby urbanized area. This provides a beneficial partnership for newly urbanized areas and transit agencies that may have no direct experience with FTA requirements. The major requirements, as listed by *Research Results Digest 384* are included below:

Additional Requirements for Servicing Urbanized Areas

Safety and Asset Management Plans

Designated recipients and sub-recipients are required to comply with MAP-21's requirement of maintaining a transit asset management (TAM) plan and a transit safety and

oversight plan. According to *Sources of Funding for Transit in Urban Areas in Texas*, the TAM ensures that an agency's entire transit system is maintained in a state of good repair (SGR). The FTA is currently evaluating the SGR definition and establishing performance measures for review. The Transit Agency Safety Plan is required by the Safety Management System (SMS) established by MAP-21. The SMS also establishes a National Safety Plan and a Safety Certification Training Program. Within Texas, TxDOT is responsible for publishing performance targets for the safety plan, as well as defining safety plan requirements for small urban and rural transit providers. As of August, 2015, the FTA is still evaluating and finalizing the portions of the SMS (Cherrington, 2015).

Triennial Reviews

Federal requirements state that the FTA must conduct a review of transit agencies receiving Section 5307 funding every three years. The requirement was mandated by Congress in 1982 and, according to the FTA website, "...examines how recipients of Urbanized Area Formula Program funds meet statutory and administrative requirements" (Federal Transit Administration, n.d.-b). The FTA provides guidance and assistance to transit agencies preparing for a review through workshops, guidebooks and other training materials. The reviews also inform FTA of any improvements on reporting to oversight entities such as Congress and the Secretary of Transportation. In addition, transit agencies, rural or urban, must adhere to other federal requirements such as reporting to the National Transit Database, and adhering to federal regulations such as Equal Employment Opportunity Act and Americans with Disabilities Act among others.

Urban Gaps

The report *Sizing and Serving Texas Urban Gaps* provides information on how an urban designation change can leave some communities without public transportation. According to the report, it is common for transit service areas and urbanized boundaries not to match, leaving populations within the urbanized boundary without service. In the literature reviewed, these pockets of urbanized areas without public transit service are called “urban gaps.” Researchers identified urban gaps around 23 urbanized areas in Texas, including the five most populated metropolitan areas of Houston, Dallas-Fort Worth, San Antonio, Austin and El Paso.

Several strategies exist for communities lying partially or completely within an urban gap area. These strategies include joint urban/rural operation, creating a limited eligibility transit agency, and contracting for service.

Joint Urban/Rural Operation

Under a joint urban/rural operation, one transit provider is responsible for providing rural and urban transit. *Sizing and Serving Texas Urban Gaps* provides a case study of the City of McKinney in Collin County, outside of Dallas. After McKinney became designated as an urbanized area during the 2000 U.S. Census, the city worked with Collin County Area Regional Transit (CCART), the rural transit provider, to provide transportation within the city. Using 5307 (urban) funding, state allocated urban funding and contributions from McKinney, CCART was able to provide urban transit service in addition to continuing the rural service throughout the county. However, some of the county’s area had also been designated as part of the Dallas-Fort Worth metropolitan urbanized area. CCART worked with the North Central Texas Council of Government, which also serves as the metropolitan planning organization (MPO) to obtain funding to service the newly

urbanized areas in Collin County. NCTCOG offered some funding to CCART from the Section 5307 funds. Usually allocated only toward capital expenses, a provision was in place that allowed for 5307 funding to be allocated toward operating expenses for newly urbanized areas from the 2000 census.²

Limited Eligibility Transit Agency

According to the *Serving and Sizing Texas Urban Gaps* report, as of 2010, Texas has four limited eligibility transit agencies. This includes Arlington, Grand Prairie, Mesquite and Northeast Transportation Service (NETS). The cities decided not to join with nearby regional transit authorities, opting instead to sponsor their own transit agencies for the elderly and persons with disabilities. According to a Wired.com article, in 2013, Arlington, with a population of 375,000 people was one of the largest urban areas without public transportation. One option for the city includes dedicating a one cent sales tax to receive Dallas Area Rapid Transit (DART) service to the area. Another alternative includes a dedication of a ½ cent sales tax for Fort Worth Transportation Authority (The T). However, the city already dedicates much of that sales tax revenue to repay bonds used to build stadiums for the Cowboys and the Rangers sports teams. Currently, the city is serviced through a public-private partnership for Metro Arlington Express (MAX) service. Funding for the system is provided by the city, local businesses, University of Arlington and both DART and The T (Barry, 2013). The service, originally contracted to terminate in 2015, will continue until 2016 (Ciesco, 2015).

² By 2011, the Section 5307 funding for operating expenses was expended, and CCART experienced a significant gap in funding. By June 2013, CCART had failed to recoup funding deficits and the Collin County Commissioner's Court decided to terminate the CCART contract, opting to partner with Texoma Area Paratransit System (TAPS) for service (Dallas Morning News, 2013).

Contracting for Service

Contracting for service is a popular alternative for newly urbanized jurisdictions. According to *Sizing and Serving Texas Urban Gaps*, contracting for service can include paying an existing transit provider to provide service outside their service area, paying for a private provider under the sponsorship of an existing transit agency or having a combination or mix of providers under the sponsoring agency (Arndt et al., 2010). Contracting for a limited fixed-route or demand response service was found to be most common through the case studies and interviews.

These strategies are the most common solutions for jurisdictions affected by a change in census designation. The case studies below highlight other regions in the U.S. that have transitioned from rural to urban transit service and the strategies they employed.

National Case Studies

NCHRP Research Digest 384 presents a case study for the urbanized area around Salisbury, Maryland. This area includes the three counties of Somerset, Wicomico and Worcester. Before the urbanized area designation, each county provided their own rural transit service. The jurisdiction began planning for the rural to urban transition in 1998, when it became clear that the area would most likely be designated as an urbanized area by the 2000 census. In 2001, the Shore Transit Association, a non-profit organization, was formed to advocate for transit interests in the area. In the same year, the Maryland legislature created the Tri-County County Council for the Lower-Eastern Shore of Maryland (TCC) to oversee the regional planning efforts in the area, eventually becoming the host agency for the MPO for the region.

In 2002, with the help and planning of the Shore Transit Association, three county rural transportation representatives initiated the conversations with TCC to merge the three

transit operations into a single operation over the urbanized and rural area (Tri-County Council for the Lower Eastern Shore of Maryland, 2011). This agreement was finalized over the next two years and by 2004, TCC was providing transit to both urban and rural areas in the region, acting as a joint urban/rural operation. Section 5307 funding was used for 85% of the region, while the remaining rural areas were funded with Section 5311 funds. The matching funds for the 5307 grant were provided by the state of Maryland (Bond et al., 2013).

Joint urban/rural operations, as in the Shore Transit case study are not common in Texas. The one example from the literature, CCART, was itself not sustainable, eventually leading to a contract based service with Texoma Area Paratransit Service (TAPS) for transit service. The next chapters will highlight areas in Texas that have been affected and what strategies those communities have used to maintain or expand transit access.

Chapter 3. A Brief Snapshot of Texas Areas Affected by the 2010 Urbanized Area Designation: Transit Survey and Results

This chapter identifies newly urbanized areas within the state that resulted from the 2010 Census. An online survey was created and used to gather information and practices from a municipal or jurisdictional standpoint regarding the changes and challenges faced by communities undergoing a change in designation (rural or urban). The survey was consisted of seven to nine questions regarding transit access within the jurisdiction. The questions asked for information regarding the type of transit service provided, who the transit provider is and how the service is funded. The next section discusses the methodology used to select the communities contacted for the survey.

SURVEY METHODOLOGY

A large number of communities were affected from the 2010 urbanized area designation in some way. For some jurisdictions, a small portion of their community may have been designated an urbanized area. For others, large portions, including some areas entirely, were affected. To narrow down the list of jurisdictions, the following methodology was used:

1. A collection of geospatial data is available from various governmental and regional entities as well as local municipal authorities. The data for this research was collected from the U.S. Census Bureau. Data collected included the urbanized area boundaries from the 2000 Census and the 2010 Census. Other boundaries such as jurisdictional boundaries were collected.

2. Using Esri ArcMap, the newly urbanized areas were obtained by overlaying both the 2000 and 2010 urbanized area layers and erasing any overlap from the former layer. This new layer created showed the additional urbanized area shapefile from the 2010 census. **Figure 1.** illustrates the 2000 UZA boundaries, 2010 UZA boundaries and the 2010 city limit boundaries for the cities of McKinney and Melissa.

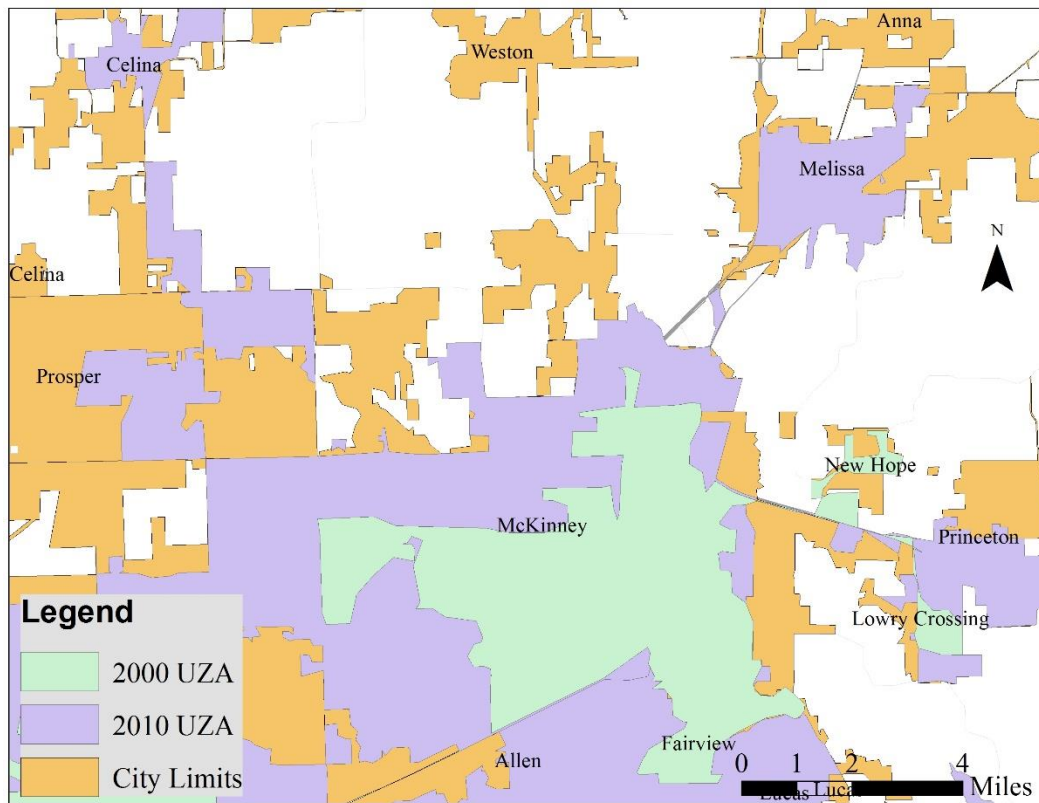


Figure 1. 2000 and 2010 UZA Boundaries around McKinney and Melissa

3. The new additional urbanized area shapefile can then be compared to existing jurisdictions in city areas by overlaying the two files. Using the intersect geospatial tool, a new shapefile can be created by intersecting the new UZA shapefile and the existing city jurisdictional shapefile. The newly created intersect shapefile represents areas in jurisdictions that are urbanized areas. The areas of these features can be calculated in ArcMap and compared to the area of the jurisdiction. **Table 1.** shows this comparison for the five least affected jurisdictions in terms of percentage. 40% was used as a threshold used to narrow down the list to communities that were largely affected by the census designation.

Table 1. UZA Percentage of Selected Areas

Name	LSAD	Area	UZA Area	UZA Percentage
Tiki Island	village	1.230	0.500	40.63%
McKinney	city	62.948	25.860	41.08%
Melissa	city	10.310	4.236	41.09%
Clarksville City	city	6.522	2.770	42.46%
Joshua	city	6.799	2.918	42.91%

Percentages calculated using ESRI ArcMap from GIS data from the U.S. Census Bureau

A total of 57 jurisdictions were identified as affected from the 2010 Census. A list of all identified jurisdictions is located in the appendix. Email information was then gathered in order to send a general survey on transit service and access in the area. The survey was sent to jurisdictions and not to transit providers, with the exception being for surveys sent within the Capital Area Metropolitan Planning Organization jurisdiction. The survey gave a general idea of service within the newly urbanized areas with the main question being, “Is public transportation provided in your city/town/jurisdiction?” With a yes or no response, a different set of questions is provided. For instance, if a respondent answered yes, he or she would then be asked the name(s) of the transit provider, the type of transit provided (fixed-route, paratransit), how the transit service is funded, what challenges have there been and how those challenges were addressed. If the respondent answered no, they would be directed to answering a shorter list of questions regarding the need for public transit in their area, what services are available and if they plan to partner with another jurisdiction in the future.

The survey was sent via email and respondents were notified that the survey would close in two weeks’ time. Out of the 57 jurisdictions that were emailed, 15 participants filled out the survey. Of the 15 participants, two representatives from the same jurisdiction

filled out the survey. Another five survey responses were only partially filled and could not be used. Thus, the survey captured responses from nine total jurisdictions.

In addition to the online survey, follow up phone calls were initiated to jurisdictions that had not responded to the survey. This yielded an additional 6 responses for a total of 13 responses. The responses provide an outlook, albeit not a comprehensive one, at some of the challenges faced by smaller communities recently designated as urbanized areas. **Table 2.** below provides a look at the jurisdictions that responded and how they answered the first question regarding public transportation in their area.

Table 2. Jurisdiction Responses to First Survey Question

1. Is public transportation provided in your city/town/jurisdiction?

Yes	No
Frisco	Buda
Conroe	Cibolo
Georgetown	Hickory Creek
Kyle	Lowry Crossing
McKinney	New Braunfels
Vinton	Patton Village
Wilmer	

ANALYSIS OF RESULTS

The survey data can be divided into two groups – jurisdictions with transit service and those without service. Of the 13 that responded, 7 reported having public transportation while 8 reported that no public transportation services are provided. Analyzing the

similarities and common patterns among these two groups can help identify what distinguishes them in terms of why they do or do not have public transportation.

Jurisdictions with Public Transportation

The respondent's answer to the first question determine the set of questions they were to receive. The jurisdictions with public transportation (answering 'yes') were asked the following questions. **Table 3.** through **Table 9.** display the questions and answers by respondent.

Table 3. What is the name(s) of the transit provider(s)?

Conroe	City of Conroe contracted with a company called Ride Right for Operations
Frisco	TAPS
Georgetown	CARTS
Kyle	CARTS
McKinney	TAPS
Vinton	El Paso County Transit
Wilmer	City of Wilmer Elderly Transit Services

Table 3. displays the answers to which transit provider the jurisdictions use. Five of the seven responding jurisdictions use the rural transit provider to provide urban services.

Table 4. Please explain the type of service provided (i.e. fixed-route bus, direct response, paratransit).

Conroe	Fixed Route and Complimentary ADA Paratransit Service
Frisco	Demand Response
Georgetown	Demand Response, commuter service
Kyle	Demand Response
McKinney	Demand Response, fixed-route
Vinton	Fixed shuttle route twice a day.
Wilmer	Direct-response paratransit to senior center, medical trips, and grocery/pharmacy

Observing **Table 4**, we see that demand response is the most frequent type of service provided, followed by fixed route. Demand response service can be a cost-efficient and effective service for small urbanized areas.

Table 5. How is public transportation funded in your jurisdiction? Funding may include federal grants,

Conroe	Federal, state and local funding
Frisco	Contract for service.
Georgetown	Contract for service, federal and local funding
Kyle	Contract for service, federal funding 5307 and local
McKinney	Contract for service, federal funding 5307, 5316 and local

Vinton	Federal and state grants funds through TxDOT
Wilmer	Bus provided by TXDOT grant, city provides funding for drivers

Table 6. Was your jurisdiction's funding affected by the 2010 Census' designation of your jurisdiction as an urbanized area?

Conroe	Yes, the Conroe-Woodlands Urbanized Area was designated
Frisco	I don't know, probably.
Georgetown	Yes
Kyle	Yes
McKinney	Yes
Vinton	Federal and state grants funds through TxDOT
Wilmer	No

The results from **Table 6.** are from a question asking about census designation impacts. The areas chosen for surveying and interviewing were chosen based on the amount of urbanized land that the jurisdiction acquired. This designation should have affected all the jurisdictions chosen.

Table 7. What challenges, if any, has your jurisdiction faced regarding public transportation? (This may include complaints from the community regarding access, service frequency... etc.)

Conroe	Our main challenge is coverage area. Most of the complaints we receive are based on the limited area that the fixed route services currently.
Frisco	Fixed route system was canceled due to lack of ridership and expense.
Georgetown	-
Kyle	-
McKinney	Accurate reporting for ridership numbers, mechanical issues with buses
Vinton	Funding prohibits additional routes and accessibility for disabled users.
Wilmer	A need exists for younger than 55 transportation to jobs and shopping

Table 7. shows that several jurisdictions identified challenges in their communities regarding transit service. Conroe’s challenge of transit coverage is based on the route service provided, which is primarily fixed-route and paratransit. For a city of Conroe’s size (62,032) it might be beneficial to integrate some form of demand-response service in addition to their fixed-routes. Frisco, a larger city than Conroe with a population of 136,791, had to cancel their fixed-route service and move to a demand response transit service. It can indeed be difficult to maintain a fixed-route service in smaller jurisdictions. Other options, such as flex-route service or commuter service can be beneficial for areas lying outside of a major metropolitan area.

Table 8. How has your jurisdiction addressed those challenges? What has worked and what was less successful?

Conroe	We are planning for future expansion and procuring additional buses.
Frisco	Providing only a demand response service that is intended to serve those most in need.
Georgetown	-
Kyle	-
McKinney	Talked to TAPS, working on it
Vinton	still working
Wilmer	Due to budget limitations and the dedication of 1% sales tax to Economic Development we are capped out on sales tax and cannot participate in DART programs for mass transit

Wilmer and Vinton Village brought up financial issues regarding transit service expansion and quality. Financial issues will commonly be a major problem for small urbanized areas. As rural areas prior to the census, these areas were fully serviced by the local rural transit provider.

Table 9. Does your jurisdiction plan to work with neighboring jurisdictions to provide public transportation in the future?

Conroe	Absolutely
Frisco	We do not now but may in the future.
Georgetown	Possibly
Kyle	Possibly

McKinney	Possibly, talks with city council
Vinton	Yes
Wilmer	No, if a regional provider offers services we will accept this support.

The jurisdictions with public transportation were generally larger in terms of population. Contracting for service was strategy used for all of the jurisdictions that responded. Responses were varied regarding the type of service provided. Demand-response was the most common transit service provided, along with flex-route and fixed-route services. Most of the jurisdictions use funding from the city's general fund to provide the match for Section 5307 funding, with two responding jurisdictions noting that they use TxDOT grant funding as well.

Contracting for service appears to be the most economical and efficient means of securing transit service for smaller urbanized areas. A representative from McKinney states that a fee based service works well for the city. The nearest urbanized transit agency, DART, also requires a one cent sales tax for transit service. McKinney, and many cities in Texas, are already at the cap of their allocated sales tax. With a contract service, the city decides where and how much transit to provide and can add a budget line to the city's budget. As an urbanized area, McKinney provides a match for FTA Section 5307 funds. TAPS, the provider for McKinney, is the direct recipient of the funds. This arrangement would also be considered a joint rural/urban strategy since TAPS provides rural service to Colin County as well. In addition, Section 5316 Jobs Access and Reverse Commute (JARC) funds are also used for a commuter service into the DART service area.

Jurisdictions without Transit Service

A fewer set of questions were asked to jurisdictions that did not have transit access.

Table 10. through **Table 13.** display the questions and survey responses:

Table 10. Is there a need for public transportation in your area? Will you see this changing in the near future?

Buda	Yes and yes
Cibolo	Yes. /
Hickory Creek	No We are a small community located in a more rural area of Collin County. Those who live here choose to be in a more remote, quieter area. I do not see this changing. If a need occurs residents can utilize the Collin County transportation system of TAPS Public Transport.
Lowry Crossing	
New Braunfels	No inquiries, there is a need, feasibility is questionable
Patton Village	Although economic growth in East Montgomery County is currently growing at a rapid pace, we do not have a need for public transportation. However, with the development of commercial properties at the intersection of US Highway 59/69 and FM 242, there may be a need for public transportation to the area within the next 5 to 10 years.

Table 11. What transportation options currently exists for people without vehicles or unable to drive?

Buda	Buda currently provides a senior van service. The van runs Monday, Wednesday, and Friday only. A seat must be reserved in advance. The van take rider to the grocery store and to the doctor. The van stops in Buda, Kyle, and San Marcos, but it only for Buda citizens. The City of Buda pays for this service and it is free for senior citizens to use.
Cibolo	San Antonio VIA Vanpool Service
Hickory Creek	Walk, Bicycle, taxi service, - very small town of 4,000
Lowry Crossing	GoTaps is available through appointment and fee schedule.
New Braunfels	Limited sidewalks and bicycle facilities, bike/ped plan
Patton Village	There are no transportation options for our residents at this time. Our city is a financially challenged municipality and does not have the ability to subsidize these options.

Table 12. Has your jurisdiction worked with other jurisdictions in the past to provide public transportation?

Buda	Yes
Cibolo	San Antonio VIA
Hickory Creek	Talking about it, not very far, council discussions - No
Lowry Crossing	No
New Braunfels	Worked with AAMPO – bike ped plan, future high speed rail, VIA for some bus service. Commuter, - constant
Patton Village	No, we have not worked with other municipalities.

Table 13. Does your jurisdiction plan to work with neighboring jurisdictions to provide public transportation in the future?

Buda	Yes
Cibolo	Yes
Hickory Creek	Not at this time
Lowry Crossing	There are no plans at this time.
New Braunfels	Yes
	Our city works well with others. We would always be open to such a venture with our neighboring cities.
Patton Village	

The jurisdictions without public transportation are varied, but as a whole, have a lower population than the cities that do have transit service. Some of the respondents noted that public transportation is not a current need, but may be in the near future. Most jurisdictions have some form of alternative transportation options, although not technically public transportation. For instance, the City of Cibolo, located outside of San Antonio, contracts with VIA Metropolitan Transit for a van pool service. The city pays a set rate for this service based on the number of vans. Other jurisdictions, such as Buda, provide transportation services for elderly and disabled persons.

The survey and interview results are provided to give an insight on other smaller urbanized areas in Texas and the strategies they use to fund transit service. For a more detailed analysis, follow up interviews were carried out with various jurisdictions within the CAMPO region. These jurisdictions contained urbanized areas that are outside the

Capital Metro service area. The following section outlines a synthesis of practices that these jurisdictions have undertaken to improve or acquire transportation services.

Chapter 4: Case Studies in the CAMPO Area

The CAMPO region consists of six counties: Bastrop, Burnet, Caldwell, Hays, Travis and Williamson counties. Approximately 2 million people reside in the CAMPO area as of 2015. This area is expected to continue growing, with a population project of 4.1 million residents by 2040 (Capital Area Metropolitan Planning Organization, 2015). The Capital Metropolitan Transportation Authority (Capital Metro) is the primary transit provider for the greater Austin metropolitan area. The surrounding rural areas within CAMPO are serviced by the Capital Area Rural Transportation System (CARTS). Within CAMPO, urban gaps exist in areas and jurisdictions that have been previously served by the rural transit provider or have opted out of the one cent sales tax required by Capital Metro. As new areas within CAMPO are designated as an urbanized area by the U.S. Census, CARTS can no longer use 5311 funds to provide service within those areas.

PUBLIC TRANSIT CONTEXT

Capital Metro was created by a voter referendum on January 19, 1985 to, “provide mass transportation to service the greater Austin metropolitan area” (Capital Metropolitan Transportation Authority, 2014). Nine jurisdictions initially voted to participate in the authority by dedicating a one cent sales tax for transportation services. Of the nine areas, four of them (West Lake Hills, Rolling Wood, Cedar Park and Pflugerville) voted against

joining for service and are currently not in the service area. Since then, the service area has grown to include other areas such as Leander and Manor.

In addition to a one cent sales tax, Capital Metro obtains funding from a number of grants including:

- Job Access and Reverse Commute (Section 5316)
- New Freedom (Section 5317)
- Enhanced Mobility of Seniors and Individuals with Disabilities (Section 5310)
- Urbanized Area Formula Grant (Section 5307)
- Bus and Bus Facilities Formula Grants (Section 5339)
- Section 5309 (Capital Investment Program)
- Transportation Investments Generating Economic Recovery (TIGER)

Discretionary Grant Program

Passenger revenue is the next biggest source of revenue, however, it makes up only 7% of total revenue.

CARTS was created in 1978 and serves the rural areas of the greater Austin area. In addition, CARTS provides a number of services to urbanized areas such as Georgetown and Kyle through a contracted service. According to the CARTS website, the transit agency runs a number of fixed routes such as a commuter routes and interurban routes as well as demand-response curb-to-curb services in the rural service area. CARTS is funded through FTA grants such as Section 5311 and 5310, contractual interlocal agreements and fare revenue.

Capital Metro's role as the urban transit provider has been significant within the region, as some of the case studies will show. One initiative in particular is a collaboration

between Capital Metro and CARTS - the Office of Mobility Management. According to the City of Austin website, the collaboration is a, “partnership between CARTS and Capital Metro with the purpose of increasing connectivity among all transportation providers in the region and creating a seamless transportation network” (Capital Metropolitan Transportation Authority & Capital Area Rural Transportation System, 2014).

In addition to the primary public transit entities, the Capital Area Regional Transit Coordination Committee is the primary transit coordination entity for the ten county capital area region. According to the RTCC website, the committee represents more than 25 agencies and organizations, “responsible for providing public transportation, providing health and human services or interested in coordination of transportation services” (Capital Area Regional Transit Coordination Committee, 2014). Regional coordination planning is a requirement for any local to receive FTA funding such as Section 5310 and 5311 grants. TxDOT is responsible for overseeing the distribution of these section grants. Since 2005, the TxDOT Strategic Plan has incorporated regional coordination planning in accordance to the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) legislation (Capital Area Regional Transit Coordination Committee, 2012). **Figure 1.** below shows the Capital Area RTCC planning jurisdiction. The red sections indicate service gaps (urban gaps) within the regional transit system.

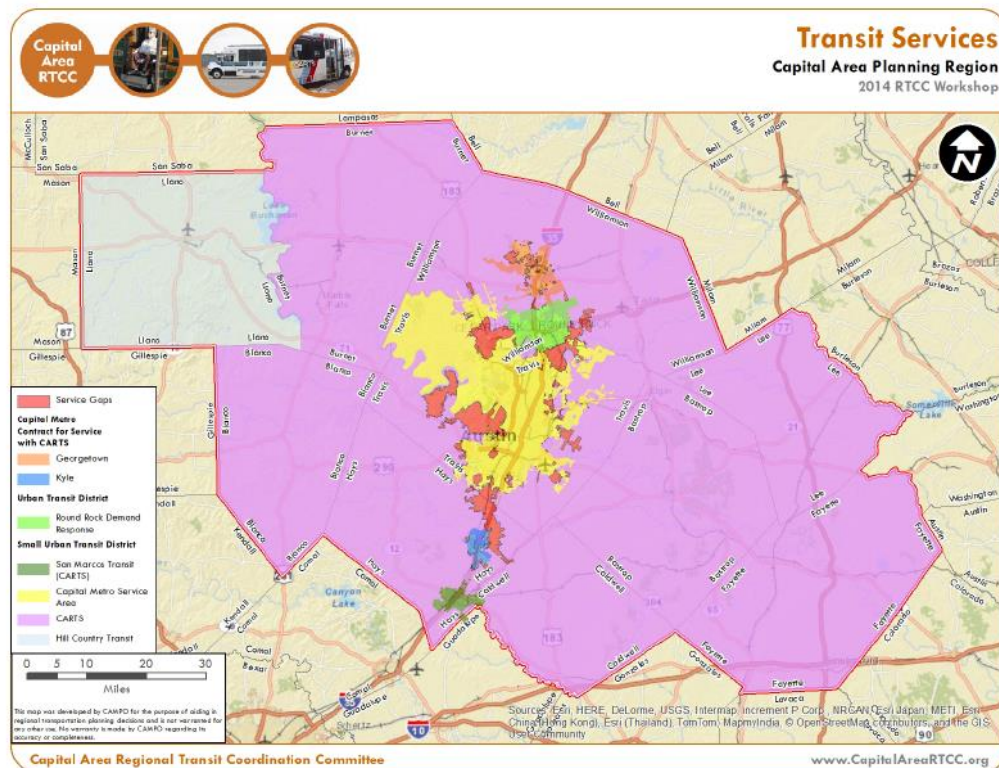


Figure 2. Map of the Capital Area RTCC Region

The following jurisdictions are located outside of the Capital Metro service area but are designated as part of the Austin metropolitan area, thus not eligible for Section 5311 funding to be serviced by the rural provider. A total of four interviews were conducted from the City of Round Rock, the City of Buda, the City of Cedar Park and the City of Georgetown. These case studies provide insight and planning strategies from a municipal perspective coordinating with the local rural and urban transit provider.

CITY OF ROUND ROCK

Population	109,821
Current Transit Provider	Star Shuttle

Strategy	Limited Eligibility Transit Agency
Funding Structure	Fee based; funding from City of Round Rock
FTA Funding Recipient	City of Round Rock (Direct Recipient)
Additional Transportation Options	Fixed route service from CARTS; Capital Metro Van pool service available.

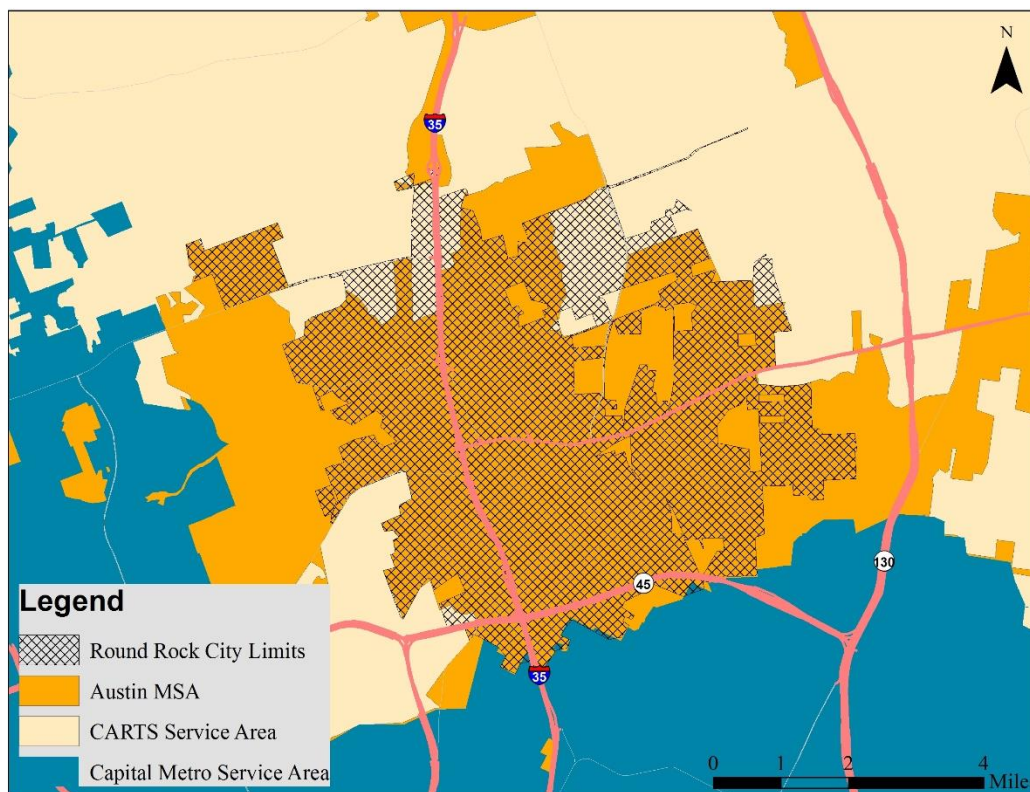


Figure 3. City of Round Rock

The city of Round Rock has an estimated population of 109,821 in 2013 (ACS 2013). Several parts of the city were designated as urbanized areas in both the 2000 and 2010 Censuses. The city currently contracts with Star Shuttle to provide demand response

bus service. The service is funded using general funds comprised of sales tax and property tax allocations.

In 2000, part of Round Rock's designation as part of the Austin metropolitan urbanized area essentially eliminated the demand-response service that CARTS provided, fully funded through federal grants. Round Rock continued the demand-response service through a contracted service with CARTS. As the population neared 100,000 by the 2010 Census, the city started to examine other transportation options such as fixed route commuter buses. According to a 2011 news article, the City of Round Rock began a contract with Capital Metro for three fixed-route commuter bus routes and 6 bus stops. The city was able to use federal 5307 funding to provide a match to the \$500,000 per year costs (Rasmussen, 2011).

Round Rock's current demand-response service is a reservation based system in which riders make a reservation online to a destination within the city limits or extraterritorial jurisdiction. General fares range from \$5 to \$7 per trip based on the resident's home address location, with an available discounted rate from \$2 to \$3 per trip. Discounted rates are available for residents younger than 12 years of age or over 60 years of age; temporarily or permanently disabled person; and low income persons. Trip pass cards can be purchased as well, which allows riders to buy 10, 15 or 20 rides in advance.

Other transit options are available as well, including a fixed-route intercity bus service provided by CARTS, a vanpool service available from Capital Metro and Drive-a-Senior services. A full list of services is made available to the public via the City of Round Rock's website on Transportation. In addition, the city has also initiated the Round Rock Transit Plan to evaluate the effectiveness of the current demand-response system and address any future plans or considerations for public transit. Citizens within the Round

Rock area can address issues and submit input via a survey module through the city’s transit plan website.

Key Findings

The City of Round Rock is an interesting case study in terms of the funding structure and strategy used. As a limited eligibility transit agency, the City of Round Rock becomes a direct recipient of FTA funds such as Section 5307 funds. The city also assumes the responsibility of specific requirements such as NTD reporting, safety and asset management plans and keeping record for triennial reviews.

According to a representative from the City of Round Rock, Section 5307 funding is designated on a two-year basis, and as such, a Memorandum of Understanding (MOU) must be submitted and undersigned by Capital Metro and CAMPO. The city is able to match their federal funding with general fund dollars – comprised of property and sales tax revenue.

This avenue can work for cities of Round Rock’s size. For smaller cities, acting as an FTA direct recipient can be a large undertaking involving dedicated staff and knowledge of the grant process.

CITY OF BUDA

Population	10,209
Current Transit Provider	CARTS
Strategy	Contract for specialized service – no public transportation available.

Funding Structure	Free service for seniors and persons with disabilities; funding from City of Buda
FTA Funding Recipient	N/A

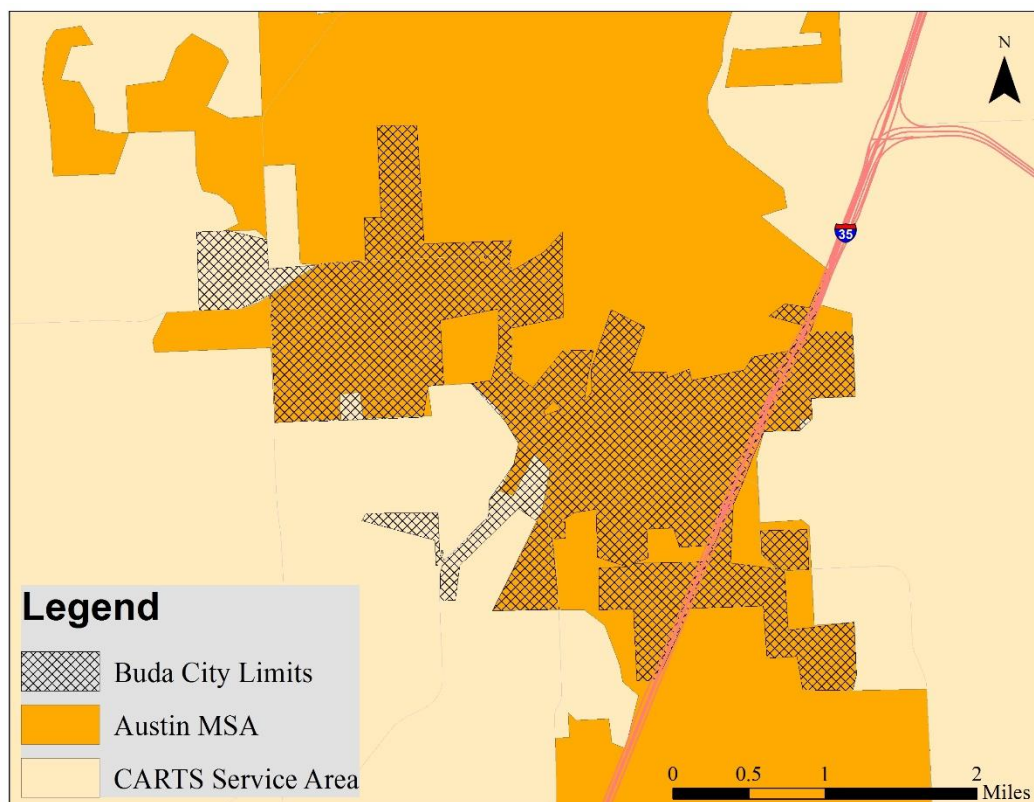


Figure 4. City of Buda

The City of Buda is a growing city with a population estimate of 10,209 (ACS 2013) as of 2013. Buda has been affected by both the 2000 and the 2010 Census designations as most of the jurisdiction is now part of the Austin metropolitan urbanized area. Mass public transportation is not currently provided in the urban gap areas, however, the city does provide a senior van service. Reservations must be made in advance and service only runs Monday, Wednesday and Friday. The van makes stops at the grocery

store, doctor's offices and makes stops in Kyle and San Marcos. The service funded by the city's general fund and is free for senior residents of Buda.

According to a 2013 news article, the City of Buda surveyed community residents to identify priority allocations for city spending. The survey indicated that most residents (29%) supported increased funding for widening roadways in the jurisdiction. Only 7% responded that the additional of local bus service was a priority. The article addresses that Buda would have to dedicate a portion (1%) of their sales tax revenue to join the Capital Metro service area. This option was not feasible since the city had already maxed their sales tax cap of 8.25% (Thorne, 2013).

The change of Capital Metro policy in 2014 has opened alternative avenues for the city. As of 2015, Buda is coordinating with the Office of Mobility Management for a possible service contract to provide service throughout the area. According to a City of Buda representative, the partnership will be assessing where in the community transit access is most needed and how to efficiently address those needs. As of summer of 2015, Buda and Capital Metro have started holding joint public meetings to help bring public input into the planning process and identifying what and where the greatest needs are regarding public transit. Possible options include a commuter service into Austin as well as a partnership which would help to lessen the cost burden.

Key Findings

The change in Capital Metro policy of allowing limited transit service without a dedication of the one cent sales tax is very beneficial for Buda. Similar to some of the smaller urbanized jurisdictions in the survey, Buda as a city, cannot allocate their one cent sales tax to public transit. There is simply not enough demand to justify the large loss of revenue that the city would encounter. Thus the service becomes "too expensive." With

Capital Metro’s help and newly created policies, a possible coordination remains viable at a reasonable price tag for the city.

CITY OF GEORGETOWN

Population	54,898
Current Transit Provider	CARTS
Service Provided	Demand-response
Strategy	Contract for service
Funding Structure	Fee based; funding from city’s general fund
FTA Funding Recipient	Capital Metro – Direct Recipient
Additional Transportation Options	CARTS commuter service to Austin

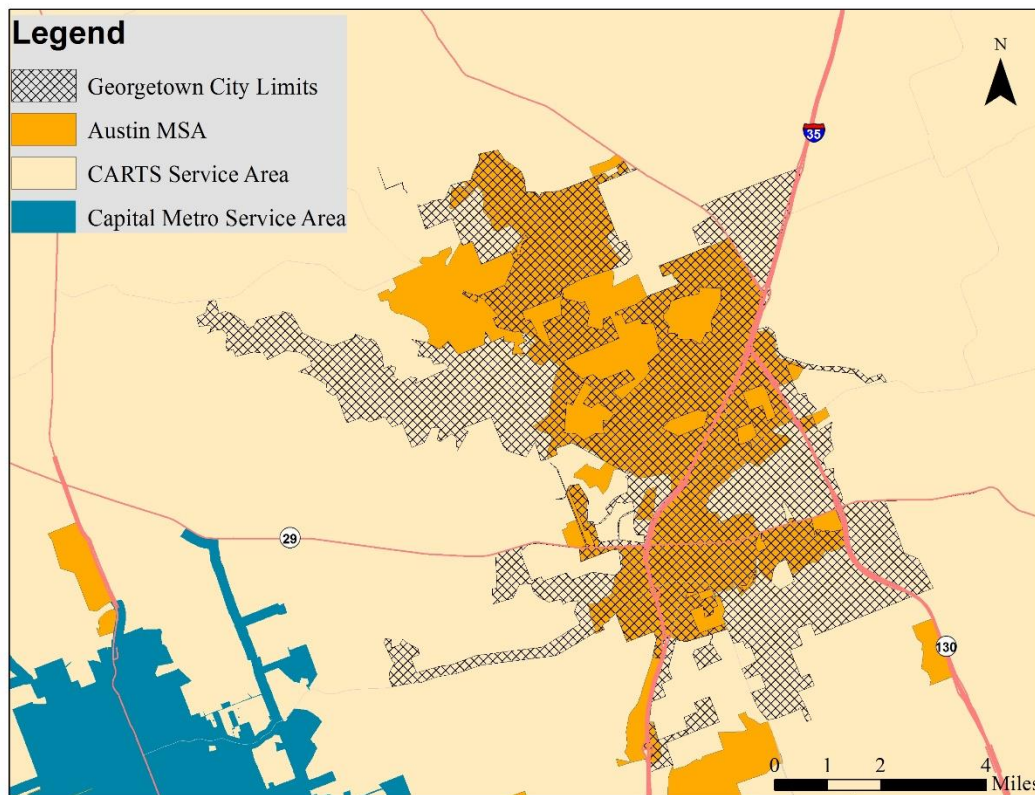


Figure 5. City of Georgetown

The City of Georgetown is a growing urbanized area north of Round Rock with a 2013 population estimate of 54, 898 (ACS 2013). According to a representative from the City of Georgetown, the city currently contracts with CARTS to provide demand response service (curb to curb) within city limits. The service is funded mainly through the city’s general fund, which includes sales and property tax. The funding provided by Georgetown is matched with Section 5307 grant funding, which can be used for operational as well as capital expenditures. Capital Metro remains the direct recipient of the 5307 funding and oversees the distribution of matching funds. In addition, Capital Metro holds responsibility for all urbanized area funding requirements such as maintaining safety and asset management plans.

The Office of Mobility Management has been instrumental in assisting Georgetown with preparing their Transit Development Plan Study. OMM has helped to lead the transit route planning process by facilitating input from the community. According to a local Austin news article, input from CARTS, local Georgetown school districts and non-profit organizations were incorporated in developing the proposed route plans (Wade, 2015). The city plans to become the first nonmember jurisdiction to receive fixed-route service from Capital Metro – made possible after a policy change in 2014, allowing nonmembers to receive limited service without joining the service area and dedicating a 1 cent sales tax.

Key Findings

As Georgetown continues to grow, the current demand-response service may need to be enhanced by other transit routes and service. Georgetown is taking the necessary steps to plan ahead by working with Capital Metro’s Office of Mobility Management to assess current and future needs. Contracting for service allows the city to determine a set amount for the contract – without joining the Capital Metro service area.

CITY OF KYLE

Population	31,760
Current Transit Provider	CARTS
Service Provided	Demand-response
Funding Structure	Fee based; funding from city’s general fund
Strategy	Contract for service
FTA Funding Recipient	Capital Metro – Direct Recipient

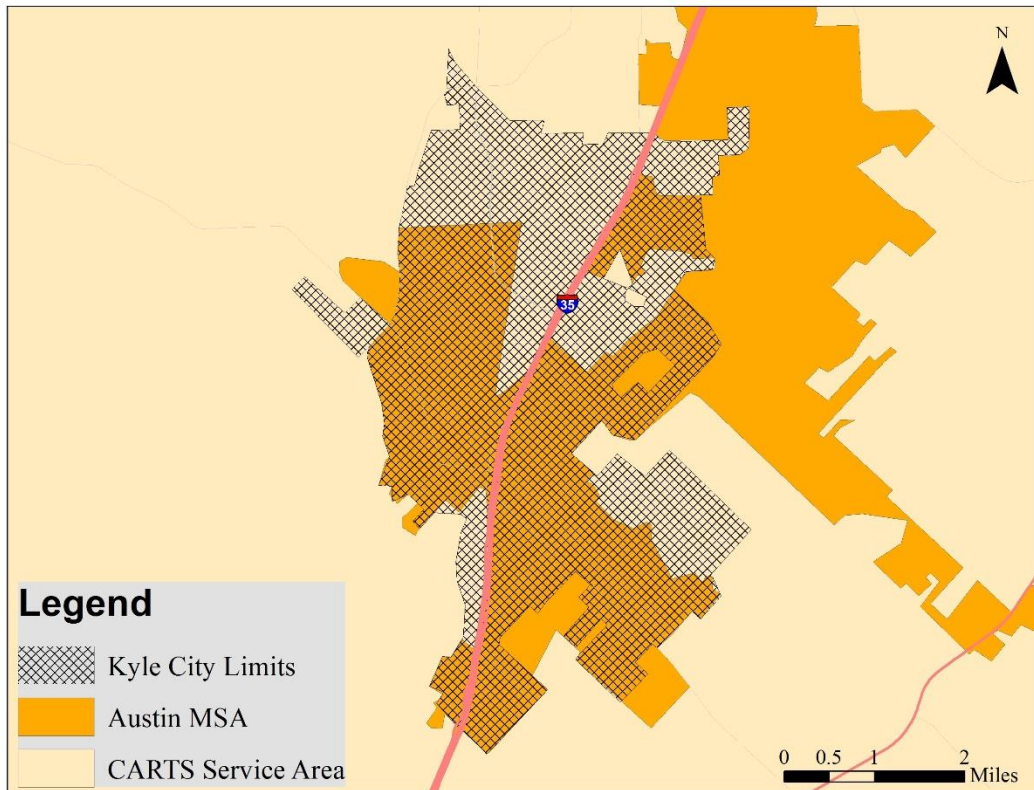


Figure 6. City of Kyle

The City of Kyle is located south of Buda along IH-35. The population is estimated at 31,760 as of 2013. Kyle currently has demand-response service provided by CARTS. The service is funded in part by the City of Kyle and through matching Section 5307 funds. Capital Metro remains the direct recipient of the funding and are responsible for annual reporting and other federal requirements.

According to a City of Kyle representative, the city is currently undergoing a transit assessment study to examine the options and associated financial costs for a more robust transit system. A Community Impact Central Austin article addresses the possible partnership with nearby Buda to help split the costs of more transit service. The

assessment will be particularly looking at commuter service, flex route and demand response options.

Key Findings

Contracting for demand response service is a common strategy undertaken by a city of Kyle's size. This allows the city to determine which routes they want to implement and budget accordingly. Similar to many smaller urbanized areas, Kyle uses their 1 cent sales tax allocation for economic development. Joining Capital Metro service would be a large loss of revenue for the city. Kyle's partnership with Capital Metro acting as the FTA direct recipient is beneficial in terms of the responsibility of reporting and other regulations being tied to Capital Metro.

The level of demand in the area is also a key factor in determining what transit services are needed. As more demand grows for the transit services, other options, such as fixed-route services may be explored.

Chapter 5. Summary and Best Practices

The four jurisdictions profiled and the survey results highlight jurisdictions under the same urbanized designation and transit service transition. Several of the jurisdictions have made significant headway and have proposed, implemented and/or improved their transit service. For other jurisdictions, especially communities with smaller populations, transit service and access may not be a priority or a need. A representative from the City of Lowry Crossing, a community located outside of McKinney, explained that while the city is technically apart of the urbanized area, the town is still rural in character. The residents that do live there choose to be in a rural or quieter environment. The

representative stated that while they did not anticipate this changing within the foreseeable future, however, if the need does arise, TAPS Public Transit has a demand-response service available via appointment for a set fee.

Within the CAMPO jurisdiction, a large amount of coordination between municipalities and agencies have helped to bridge the service gaps in many areas. Capital Metro's policy change in 2014 to allow limited service to jurisdictions without the 1 cent sales tax dedication is a great improvement to expand mobility throughout the region. Successful regional coordination planning through the Capital Area RTCC has been a large contributing factor to transit improvements in the area. A representative from the Office of Mobility Management stated that the coordination efforts from RTCC workshops and meetings led to the creation of the OMM.

A dedicated office and staff for coordinating mobility and focusing on areas without transit service is a significant initiative from the urban transit provider. The OMM has not only been a hub for public communication regarding transit service, but has also had a key responsibility in advancing transit planning initiatives in Georgetown, Buda and Kyle. **Table 2.** below provides a summary of strategies and funding sources that each of the jurisdictions utilized in the case studies.

Table 14. Summary of Case Studies

City	Current Transit	Strategy	Funding Source
Round Rock	Demand-response, commuter routes, intercity routes.	Limited eligibility transit agency. Reassessed transit needs when area reached 100,000.	City funded with matching grant funds from FTA Section 5307
Buda	Demand-response for seniors and disabled persons (no transit access for general public)	Contracted for limited eligibility demand response. Assessed community interested in city initiatives through survey	Free for eligible riders, city funded.
Georgetown	Demand-response, commuter service	Coordinated with urban transit provider to contract for limited service	Fee based and city funded with matching Section 5307 funding
Kyle	Demand-response	Contracted for service with CARTS	Fee based and city funded with matching Section 5307 funding

The results of the four case studies show that contracting for service was the most common strategy used to address the urban gap service areas caused by the transition of

rural to urbanized area designation. It is important to note that coordinating in advance of the census designation of rural to urban or urban to rural is an important role for both jurisdictions and transit agencies. Proper studies and financial assessments such be taken into account from a municipal perspective. None of the four jurisdictions joined the Capital Metro service area because of the 1 cent sales tax requirement. All of the cities had maxed out their sales tax cap and were using revenue earned from sales tax revenue for general fund allocations.

FUNDING STRATEGIES IN PRACTICE

Results from the case studies and from the general survey indicate that contracting for service is a viable and effective tool for smaller urbanized jurisdictions. A contract or fee based service allows the jurisdiction to negotiate a contract with a provider and decide how much the city can afford to pay. The main reason for this approach relates to the cost of joining an existing urban transit provider, which usually involves a dedication of sales tax revenue. For smaller cities, sales tax revenue is a vital part of the general fund used for economic development and various other infrastructure allocations. Therefore, a smaller city cannot afford such a cut in revenue. Another point to consider is the actual need for transit service – there may be a very low need that does not justify the high cost of allocating sales tax revenue. This reason alone can justify a city’s decision to contract for service based on the immediate needs of the community.

Limited eligibility transit agencies, such as in the case of the City of Round Rock are less common. In this scenario, the city is the transit operator contracting with a provider for the services rendered. This strategy can be effective in that the city has total control of FTA funding and can directly manage the contracted agreement with the provider. A few limitations exist with this approach that make it difficult for smaller urbanized cities to

consider. The federal requirements associated with direct recipient status are intensive and tedious, requiring dedicated staff and knowledge of the process. This can be very challenging for smaller cities without the staff to allocate or without the proper expertise to implement.

Joint rural and urban operations are also not common, but do exist. McKinney is one example of a jurisdiction serviced by a transit provider that jointly provides rural service as well. Although CARTS provides service to urbanized areas in central Texas, they are a sub-recipient of Capital Metro, who remains the direct recipient. Essentially, transit providers such as TAPS are responsible for all aspects of federal requirements and grant application processes. For some cities that already have a joint urban and rural provider, contracting under this arrangement is very viable and similar to a fee based contract.

Chapter 6. Conclusion

The transit service challenges of urban gaps in growing urbanized areas in Texas will continue to develop, especially if the growth rates continue throughout the state. Examples from the 2000 and 2010 census should help to provide other communities preparing to undergo a designation change in 2020. There are common strategies that exist and federal funding that is available. New challenges come with an urbanized designation. For urbanized jurisdictions, additional funding that must be budgeted and allocated for transit service. This is an increase of expenditures for municipalities, as rural transit service is funded by federal grants and rider fees. On the transit agency spectrum, regulations such

as safety and asset management plans, as well as triennial reviews, must be maintained and managed to FTA specifications if grant funding is expected to be used.

It is also important to consider the transit needs of the community. Preliminary studies, needs assessments and surveys should be undertaken by the jurisdiction to inform decisions on what types of transit service are needed and where to place transit stops. Acquiring and maintaining transit service should not be the end goal of jurisdictional and transit agency responsibilities. Transit services should be frequently assessed to reflect the changing needs of the community. The City of Round Rock reassessed their transit needs as the city population approached 100,000. This allowed decision makers to coordinate with the rural and urban transit provider and negotiate contract agreements to service the city's needs.

The need for urban transit agencies to take the lead on federal regulations regarding funding is very important for smaller communities that might not have the staff time nor expertise to fulfill FTA and federal guidelines. Capital Metro's partnership with Georgetown has allowed the city to contract a service provider (CARTS) while having the urban transit provider retain the direct recipient status, and therefore, all the regulatory responsibilities and maintenance. A well-coordinated partnership can create a smooth transition from rural to urban transit service.

As more jurisdictions reach the 50,000 population mark or became urbanized through a nearby metropolitan area, transit access will become increasingly more important. Awareness of strategies and solutions to successfully transition into an urbanized transit area is a responsibility shared by all stakeholders. With changing legislation on federal grant allocations every few years, it will be important for municipalities to have general knowledge and background on FTA processes and funding. A successful

plan and community input can ensure that urban gaps are held to a minimum and are serviced as efficiently and effectively as possible.

Works Cited

- American Public Transportation Association. (2015, March 9). Record 10.8 Billion Trips Taken On U.S. Public Transportation In 2014. Retrieved from http://www.apta.com/mediacenter/pressreleases/2015/Pages/150309_Ridership.aspx
- Arndt, J., Edrington, S., Sandidge, M., Valencia, L., & Jordan, J. (2010). *Sizing and Serving Texas Urban Gaps*. Retrieved from <http://tti.tamu.edu/documents/0-6473-1.pdf>
- Barry, K. (2013, August 27). Biggest American Town Without Public Transportation Finally Catches the Bus. Retrieved from <http://www.wired.com/2013/08/arlington-texas-bus/>.
- Bond, A., Minkoff, M., Martin, L., & Santalucia, A. (2013). *Research Results Digest. Onlinepubs.Trb.Org*. Retrieved from http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rrd_05.pdf
- Capital Area Metropolitan Planning Organization. (2015). *CAMPO 2040 Plan*. Retrieved from <http://www.campotexas.org/plans-programs/campo-plan-2040/>
- Capital Area Regional Transit Coordination Committee. (2012). *Capital Area Coordinated Plan: A Plan for Coordination of Public Transit-Health and Human Service Transportation*. Capital Area Metropolitan Planning Organization.
- Capital Area Regional Transit Coordination Committee. (2014). *2014 RTCC Workshop*. Retrieved from [http://www.capitalareartcc.org/publications/RTCC Workshop 2014 - Presentation.pdf](http://www.capitalareartcc.org/publications/RTCC%20Workshop%202014-Presentation.pdf)
- Capital Metropolitan Transportation Authority. (2014). *FY2015 Operating & Capital Budget & 5 Year Capital Improvement Plan*.
- Capital Metropolitan Transportation Authority, & Capital Area Rural Transportation System. (2014). The Office of Mobility Management. Retrieved from <http://www.austintexas.gov/edims/document.cfm?id=216750>

- Cherrington, L. (2015). *Sources of Funding for Transit in Urban Areas in Texas*. Retrieved from <http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/PRC-15-11-1.pdf>
- Ciesco, T. (2015, July 8). Arlington MAX Bus Service to Continue for Another Year. Retrieved from <http://www.nbcdfw.com/news/local/Arlington-MAX-Bus-Service-to-Continue-for-Another-Year-312695691.html>
- Dallas Morning News. (2013, August 9). Collin County Area Regional Transit's new bus service begins in Wylie. Dallas. Retrieved from <http://www.dallasnews.com/news/community-news/plano/headlines/20130809-collin-county-area-regional-transit-s-new-bus-service-begins-in-wylie.ece>
- Federal Highway Administration. (2015, July 15). MAP-21-Moving Ahead for Progress in the 21st Century. Retrieved from <http://www.fhwa.dot.gov/map21/>
- Federal Transit Administration. (n.d.-a). Capital Program (Section 5309). Retrieved July 5, 2015, from http://www.fta.dot.gov/grants_1563.html
- Federal Transit Administration. (n.d.-b). Triennial Reviews. Retrieved August 4, 2015, from <http://www.fta.dot.gov/grants/12897.html>
- Federal Transit Administration. (2015). Fiscal Year 2015 Apportionment Tables. Retrieved July 5, 2015, from http://www.fta.dot.gov/12853_16278.html
- Library of Congress. (2015). H.R.2577 - Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2016. Retrieved February 8, 2015, from <https://www.congress.gov/bill/114th-congress/house-bill/2577/actions>
- Parsons Brinckerhoff. (2015). Transportation Update. Retrieved June 28, 2015, from <http://www.pbtransportationupdate.com/>
- Rasmussen, B. (2011, June). Round Rock's bus service nears reality. *Community Impact Newspaper: Round Rock, Pflugerville, Hutto Edition*. Retrieved from <http://archive.impactnews.com/pdfs/RPH/issues/RPH-2011-06.pdf>
- Texas Legislative Budget Board. (2013). *Moving Ahead for Progress in the 21st Century: Federal Transportation Reauthorization*. Austin.
- Texas State Legislature. General Appropriations Act for the 2014-2015 Biennium (2013). 83rd Texas Legislature. Retrieved from

http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2014-15.pdf

Thorne, B. (2013, April). Buda planning for growth, transportation challenges. *Community Impact Newspaper: San Marcos, Buda, Kyle Edition*. Retrieved from <http://archive.impactnews.com/pdfs/SBK/issues/SBK-2013-04.pdf>

Tri-County Council for the Lower Eastern Shore of Maryland. (2011). Shore Transit: History & Facts. Retrieved from <http://www.shoretransit.org/AboutUs/HistoryFacts.aspx>

U.S. Census Bureau. (2014, December 23). Florida Passes New York to Become the Nation's Third Most Populous State, Census Bureau Reports. Retrieved from <http://www.census.gov/newsroom/press-releases/2014/cb14-232.html>

Wade, B. (2015, May 13). City transit plan could lead to fixed-route bus system. *Community Impact Newspaper: Central Austin Edition*. Retrieved from <http://communityimpact.com/2015/05/13/city-transit-plan-could-lead-to-fixed-route-bus-system/>

Appendix

Table 15. Jurisdictions Identified

Name	LSAD	Area	UZA Area	Percent UZA
Tiki Island	village	1.230	0.500	40.63%
McKinney	city	62.948	25.860	41.08%
Melissa	city	10.310	4.236	41.09%
Clarksville City	city	6.522	2.770	42.46%
Joshua	city	6.799	2.918	42.91%
Horizon City	city	8.720	3.788	43.45%
Hickory Creek	town	4.632	2.061	44.49%
East Mountain	city	2.030	0.911	44.88%
Wilmer	city	6.514	2.937	45.09%
Cut and Shoot	city	2.698	1.217	45.10%
Arcola	city	1.968	0.902	45.83%
Frisco	city	62.491	29.360	46.98%
Lucas	city	12.696	5.972	47.04%
Copper Canyon	town	4.559	2.179	47.80%
Clint	town	1.969	0.949	48.22%
Hidalgo	city	6.391	3.100	48.51%
Cibolo	city	6.540	3.178	48.59%
Georgetown	city	50.037	24.600	49.16%
San Marcos	city	30.341	15.010	49.47%
Bullard	town	3.384	1.687	49.86%
Lowry Crossing	city	2.645	1.323	50.04%
Princeton	city	7.503	3.917	52.20%
Pottsboro	town	2.855	1.519	53.22%
Vinton	village	2.567	1.367	53.23%
Shady Shores	town	2.916	1.580	54.20%
Little Elm	city	18.642	10.290	55.20%
Fair Oaks Ranch	city	8.527	4.754	55.75%
Cove	city	1.202	0.681	56.69%
Buda	city	5.334	3.095	58.03%
Conroe	city	53.218	31.640	59.45%
Kyle	city	19.235	11.500	59.79%

Fairview	town	8.694	5.273	60.65%
Roanoke	city	5.366	3.273	61.00%
Splendora	city	3.072	1.921	62.52%
Orange	city	22.299	14.130	63.37%
Hutto	city	7.743	4.916	63.49%
Tomball	city	11.969	7.898	65.99%
Murphy	city	5.656	3.734	66.02%
Lavon	city	2.382	1.662	69.77%
Bridge City	city	6.762	4.790	70.83%
Morgan's Point	city	1.785	1.329	74.47%
New Braunfels	city	44.236	33.530	75.80%
Lakeway	city	10.582	8.450	79.85%
Selma	city	5.036	4.138	82.17%
Willis	city	3.363	2.855	84.90%
Roman Forest	town	1.499	1.277	85.18%
Hebron	town	1.275	1.091	85.56%
Marion	city	0.761	0.661	86.88%
West Orange	city	3.451	3.225	93.45%
Impact	town	0.082	0.077	94.10%
Patton Village	city	2.034	1.914	94.11%
Woodbranch	city	1.990	1.975	99.22%
Panorama Village	city	1.107	1.103	99.62%
Mobile City	city	0.016	0.016	99.63%
The Hills	village	1.095	1.094	99.97%
Hackberry	town	0.680	0.680	99.99%
Pinehurst	city	1.717	1.717	100.00%

Default Question Block

Survey - Public Transit in Texas

This survey will close on Friday, July 31, 2015.

Please enter your contact information (name, organization, title, phone/email).

Is public transportation provided in your city/town/jurisdiction?

Yes

No

What is the name(s) of the transit provider(s)?

Please explain the type of service provided (i.e. fixed-route bus, direct-response, paratransit).

Does your jurisdiction currently or plan to work with neighboring jurisdictions to provide public transportation?

How is public transportation funded in your jurisdiction? Funding may include federal grants, through a sales tax, contract basis, state grants or other sources of funding.

Was your jurisdiction's funding affected by the 2010 Census' designation of your jurisdiction as an urbanized area?

What challenges, if any, has your jurisdiction faced regarding public transportation? (This may include complaints from the community regarding access, service frequency... etc)

How has your jurisdiction addressed those challenges? What has worked and what was less successful?

Is there a need for public transportation in your area? Will you see this changing in the near future?

What transportation options currently exists for people without vehicles or unable to drive?
Does your jurisdiction subsidize these options (please explain)?

Has your jurisdiction worked with other jurisdictions in the past to provide public transportation?

Does your jurisdiction plan to work with neighboring jurisdictions to provide public transportation in the future?

Would you like to receive a PDF copy of the final report?

Yes

No

Powered by Qualtrics

Figure 7. Survey Questions